

REMARKS

Claims 1-18 were pending in the Application. Claims 1-18 are canceled and new claims 19-23 are added by the present amendment.

The present disclosure teaches, *inter alia*, methods of inducing tolerance in allograft and xenograft recipients, methods of promoting acceptance in allograft and xenograft recipients, methods of diminishing or inhibiting T cell activity, and methods of inactivating T cells, using various combinations of steps. Some of these steps involve physical or surgical treatments such as irradiation, the introduction of hematopoietic stem cells, or the implantation of grafts. Other steps involve the administration of pharmaceutical compositions or agents such as anti-T cell antibodies and immunosuppressive agents.

Applicant submits that the present disclosure of the use of combinations of pharmaceutical compositions and agents in the methods of the invention provides adequate written description under 35 U.S.C. §112, first paragraph, for claims drawn to kits comprising the disclosed combinations of pharmaceutical compositions and agents. Although the specification does not specifically recite such kits, there is no *in haec verba* [i.e. "in these words"] requirement. Rather, newly added claim limitations can be supported in the specification through express, implicit or inherent disclosure. See e.g., MPEP 2136, I.B. Moreover, if a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met. See, e.g., MPEP 2163, II.A.3(a); *Vas-Cath, Inc. v. Mahurkar* 935 F.2d 1555, 1563, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991); *Martin v. Johnson*, 454 F.2d 746, 751, 172 USPQ 391, 395 (CCPA 1972) (stating the description need not be in *ipsis verbis* [i.e., "in the same words"] to be sufficient).

The specification teaches, at page 9, lines 32-38, a method to diminish or inhibit T cell activity which would otherwise promote rejection of an allograft or xenograft as follows (*emphasis added*):

Accordingly, in another aspect, the invention features a method of diminishing or inhibiting T cell activity, preferably the activity of thymic or lymph node T cells, in a recipient mammal, e.g., a primate, e.g., a human, which receives a graft from a donor mammal. The method includes, inducing tolerance to the graft; administering to the recipient a *short course of an immunosuppressive agent*, e.g., cyclosporine, sufficient to inactivate T cells, preferably thymic or lymph node T cells; and preferably transplanting the graft into the recipient.

The specification further teaches specific embodiments at page 10, lines 21-25; at page 11, lines 17-21; and at page 12, lines 21-29, as follows (*emphasis added*):

In other preferred embodiments: the *short course of an immunosuppressive is administered in conjunction with an anti-T cell antibody*; the short course of an immunosuppressive is sufficient to inactivate T cells, e.g., thymic or lymph node T cells, which would not be inactivated by antibody-based inactivation of T cells, e.g., inactivation by intravenous administrations of ATG antibody, or similar, preparations.

Thus, the specification provides adequate support for a kit comprising a combination of an anti-T cell antibody and an immunosuppressive agent.

The specification also teaches, at page 61, lines 6-8, that (*emphasis added*):

An *anti-CD2 antibody*, preferably a *monoclonal*, e.g., BTI-322, or a monoclonal directed at a *similar or overlapping epitope*, can be used in addition to or in place of any anti-T cell antibodies (e.g., ATG) in any method referred to herein.

Thus, the specification provides adequate support for a kit comprising a combination of an anti-CD2 antibody and an immunosuppressive agent as in new claim 19, wherein the anti-CD2 antibody is monoclonal as in claim 20, wherein the antibody comprises BTI-322 as in claim 21, and wherein the anti-CD2 antibody binds an epitope also recognized by BTI-322 as in claim 22.

The specification further teaches, at page 16, lines 28-31, the meaning of the term "immunosuppressive agent" is defined as follows (*emphasis added*):

"An immunosuppressive agent capable of inactivating thymic or lymph node T cells", as used herein, is an agent, e.g., a chemical agent, e.g., a drug, which, when administered at an appropriate dosage, results in the inactivation of thymic or lymph node T cells. Examples of such agents are *cyclosporine, FK-506, and rapamycin*.

Thus, the specification provides adequate support for a kit comprising a combination of an anti-CD2 antibody and an immunosuppressive agent selected from the group consisting of cyclosporine, FK-506, and rapamycin as in new claim 23.

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CONCLUSION

Claims 1-18 were pending in the application. Claims 1-18 are canceled and new claims 19-23 are added. Applicant respectfully submits that no new matter is introduced by the present amendment.

Applicants request that the Examiner enter the amendment and that all of the pending claims proceed to examination. If, in the Examiner's opinion, a telephonic interview would expedite the favorable prosecution of the present application, the undersigned attorney would welcome the opportunity to discuss any issues, and to work with the Examiner toward placing the application in condition for allowance.

Applicants believe that no additional fees are necessitated by the submission of this paper. In the event that any such fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account No. 08-0219.

Respectfully submitted,
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